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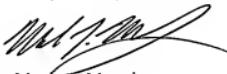
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in the following listed application(s) or patent(s) for which the issue fee has been paid.

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Respectfully Submitted,



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(12) United States Patent  
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(54) LIGHT EMITTING ELEMENT AND DISPLAY DEVICE USING THE SAME

(75) Inventors: Hisao Ikeda, Kanagawa (JP); Junichiro Sakata, Kanagawa (JP); Daisuke Kumaki, Nigata (JP); Satoshi Seo, Kanagawa (JP)

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H01J 1/62 (2006.01)

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(58) Field of Classification Search ..... 313/503,  
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See application file for complete search history.

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## (57) ABSTRACT

An object of the invention is to provide a highly reliable light emitting element with low drive voltage and longer life than a conventional light emitting element, and a display device using the light emitting element. A light emitting element according to the invention comprises a plurality of layers which is interposed between a pair of electrodes, in which at least one of the plurality of layers is formed of a layer containing a light emitting material, and the layer containing a light emitting material is interposed between a layer containing an oxide semiconductor and/or metal oxide and a material having a higher hole transporting property than an electron transporting property, and a layer containing an oxide semiconductor and/or metal oxide, a material having a higher electron transporting property than a hole transporting property and a material which can donate electrons to the material having a higher electron transporting property than a hole transporting property.

28 Claims, 13 Drawing Sheets

